

Double Crop Grain Sorghum Variety Trial in Graham County, 1987

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ABSTRACT

1987 was a better year for double-crop grain sorghum than the previous year. The yields increased to nearly a ton per acre. The top-yielding variety was Asgrow Topaz, at 7,885.7 pounds per acre. This yield topped the standard variety, DeKalb 64 by almost 4 percent. Bird damage was also reduced this year.

INTRODUCTION

This experiment is a followup to last year's trial(1). It was planned to get a second year's data on the better varieties.

MATERIALS AND METHODS

The experimental plot was located in the field directly north of Jay Colvin's home which is comprised of clay loam soils in the series Grabe and Pima. The field was furrow-irrigated, and the seeds were planted to moisture with a 6-row John Deere plate-type planter. The experiment was planted in a randomized strip plot design with a check strip of DeKalb 64 every third pass. Colvin Farms were the cooperating farmers.

Crop History

Elevation: 2800 feet above sea level
Planting date: 30 June 1988
Planting rate: 12 pounds of seed per acre
Fertilizer: 160 units of nitrogen preplant (cold flow anhydrous NH₃)
Herbicide: 2,4-D
Insecticide: None
Irrigation: 5 furrow irrigations (ca. 30 acre inches)
Harvest date: 30 November

The strips were harvested with an International 1460 combine and weighed at the top of the field with electronic truck scales. Samples were taken and percent moisture and bushel weights determined on site. Plot yields were corrected for field variation by multiplying them by the ratio of the nearest check strip to the average of all the check strips.

RESULTS

Table 1. Yields and Other Agronomic Data for Mid-season Grain Sorghum Varieties Planted as Double Crop in Graham County 1987.

VARIETY	PL HT (in.)	%M	BU WT (lbs)	YIELD* (lbs/ac)	% DK64
Asgrow Topaz	59.0	13.5	61.0	7885.7	103.9
Asgrow Dbl TX	62.0	14.0	58.0	7613.0	100.3
Dekalb 64	58.5	13.5	61.8	7589.1	100.0
PAG 5572SA	59.0	14.3	60.0	6509.6	85.8
NK 2656	49.5	12.2	59.5	5749.7	75.8

* Yields are corrected to 14% moisture.

DISCUSSION

Asgrow Topaz, in second place last year in the yield rankings of varieties, was the top ranking variety in 1987, producing more than 3% above the check variety, DeKalb 64. Consistently out-yielding the standard variety two years in a row is reason to consider larger scale plantings of this variety. Northrup King 2656, which topped the trial in 1986, dropped to the bottom this year.

Plant heights were much higher this year than last. Most of the varieties were 12 to 16 inches taller, the exception being the Northrup King 2656, which was only 6 inches taller than the previous year. Similarly, the yields were approximately 2,000 pounds per acre higher this year than last, with the exception of the Northrup King 2656 which yielded slightly less than last year.

Bird damage and lodging, which were reported in 1986, were not measured in 1987 since the losses were considered negligible.

REFERENCES

1. Clark, Lee and Ronald Cluff. 1987. Double Crop Grain Sorghum Variety Trial in Graham County, 1986. Forage and Grain, A College of Agriculture Report, Series P-71, University of Arizona, Tucson, AZ.